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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/894,879 | 06/29/2001 | Paul Glatkowski | 38572.0024 | 4705 |

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EXAMINER

WYROZEBSKI LEE, KATARZYNA I

| ART UNIT | PAPER NUMBER |
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1714

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/894,879

Applicant(s)

GLATKOWSKI ET AL.

Examiner

Katarzyna Wyrozebski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-49 and 52-103 is/are pending in the application.
- 4a) Of the above claim(s) 55-75 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 23-49, 52-54 and 76-103 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 23-49 and 52-103 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1/13/2003.
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. 0205.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

In view of applicant's amendment and response dated 11/16/2004, following final office action is necessitated. The examiner deeply regrets that this application cannot be allowed. The examiner apologizes for any delay in the prosecution of this application. Claims 55-75 are still considered withdrawn. Claims 23-49, 52-54 and 76-103 are pending. The rejections of record over the prior art of SMALLEY are incorporated here by reference.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 23-49, 52-54, 76-103 are rejected under 35 U.S.C. 102(e) as being anticipated by SMALLEY (US 6,683,783).

The discussion of the disclosure of the prior art of SMALLEY from paragraph 4 of the office action mailed on 5/18/2004 is incorporated here by reference.

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3. In the response dated 11/16/2004 the applicants argued following:

a) The applicants have found no disclosure in the prior art of SMALLEY, which indicates that the carbon nanotubes are aligned in parallel.

With respect to the above argument, the applicants are directed to the following parts of the SMALLEY disclosure: col. 3, lines 30-32, which indicates that carbon nanotubes when subjected to the electric field align and orient themselves in direction perpendicular to the field. Col. 21, lines 35-37 discloses SWNT aggregating in substantially parallel orientation. In col. 29, SMALLEY discloses in making arrays of CNTs.

b) The allegation that sonar domes may require EMI shielding does not anticipate applicant's claimed invention.

With respect to the above argument, the examiner would like to point the applicant to col. 18, lines 45-47, which indicates clearly that the carbon nanotubes of SMALLEY are utilized in RF shielding applications. RF is part of the range of electromagnetic radiation.

c) The applicants are not clear what conclusion the examiner is drawing regarding extrusion and injection molding:

Simply that the extrusion in SMALLEY would have the same effect as the extrusion in claim, for example, 41 of the present invention as it imparts the same type of shearing force.

d) The properties of the present invention are not inherent in the prior art of SMALLEY.

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With respect to the above argument, the prior art of SMALLEY discloses all the points raised by the applicants in arguments a-c.

e) Because composite contains carbon nanotubes, it does not necessarily mean that the composite will possess property of electromagnetic shielding.

Kindly see response to argument b).

4. Applicant's claims disclose composite comprising nanotubes having orientation and alignment. The orientation and alignment in the claims refers to the carbon nanotubes and not to the composite, which further means that there is no structural meaning to the word "composite". The prior art of SMALLEY teaches carbon nanotubes either alone by themselves, with polymers or protruding from some other surface. The prior art of SMALLEY even discloses rendering carbon nanotubes alive (i.e., chemical functionalization) in order to be able to react the ends together and therefore form one long nanotube. Even carbon nanotubes alone, satisfy the definition of composite as described in any dictionary. Composites in prior art of SMALLEY are further discussed in col. 29, lines 31-35.

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

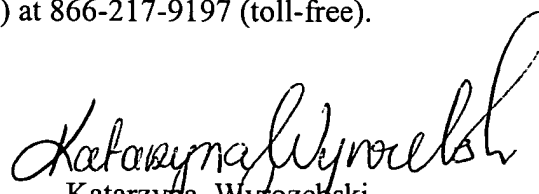
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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katarzyna Wyrozebski whose telephone number is (571) 272-1127. The examiner can normally be reached on Mon-Thurs 6:30 AM-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Katarzyna Wyrozebski
Primary Examiner
Art Unit 1714